MATERIAL SAFETY DATA SHEET

HAZARD RATING:

= EXTREME

= HIGH

MODERATE

Fire Reactivity Health

1 = SLIGHT 0 = INSIGNIFICANT

CHRONIC HEALTH HAZARD - SEE SECTION V

I. PRODUCT IDENTIFICATION

BEC'DDEC 21 1987

TRADE NAME (as labeled): Zip Aerosol D-5625 Contact Cleaner

CHEMICAL NAMES, COMMON NAMES:

Trichlorotrifluoroethane/Dichlorofluoromethane

MANUFACTURER'S NAME: Mitann, Incorporated

DATE PREPARED:

ADDRESS: 21320 Deering Court, Canoga Park, CA 91304

EMERGENCY PHONE: (818)883-4700

BUSINESS PHONE: (818)883-4700

II. HAZARDOUS INGREDIENTS

CHEMICAL NAMES

CAS NUMBERS

EXPOSURE LIMITS IN AIR

ACGIH (TLV) OSHA (PEL)

Ethane, 1,1,2-Trichloro-1,2,2-Trifluoro

76-13-1

1000 ppm

1000 ppm

Methane, Dichlorodifluoro

75-71-8

1000 ppm

1000 ppm

III. PHYSICAL PROPERTIES

VAPOR DENSITY (air=1): 4.2

SPECIFIC GRAVITY: 77°F/ 1.311

SOLUBILITY IN WATER: 77°F /% by weight 0.028

VAPOR PRESSURE, mmHg at 20 C: 94.5

EVAPORATION RATE (butyl acetate = 1) Rapid/ 0.3 (CCL, = 1)

APPEARANCE AND ODOR: Colorless liquid - slight ethereal odor

MELTING POINT OR RANGE: N/A

BOILING POINT OR RANGE: -21.6° F

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FLASH POINT, F (give method): None - TOC				
AUTOIGNITION TEMPERATURE, F: Not determined				
FLAMMABLE LIMITS IN AIR, VOLUME &: LOWER Non-Flammable UPPER Non-Flammable				
FIRE EXTINGUISHING MATERIALS:				
water spray carobn dioxidexx other: Non-Flammable				
foam dry chemical				
SPECIAL FIREFIGHTING PROCEDURES: Self contained breathing apparatus (SCBA) may be required if containers rupture and contents are spilled under fire conditions.				
UNUSUAL FIRE AND EXPLOSION HAZARDS: Can explode if subjected to temperatures above 120 F. Can be decomposed by high temperatures (flames, glowing surfaces, etc.) forming Hydrochloric and Hydrofluoric acids - possible Carbonyl Halides.				
SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.				
Inhaled: Vapor is heavier than air and can cause suffocation by reducing oxygen available for breathing. Breathing high concentrations may cause light-headedness, giddiness, shortness of breath, and may lead to narcosis, cardiac irregularities, unconsciousness or death.				
Contact with skin or eyes: Not a corrosive or irritant after single contact; however, repeated liquid contact can cause defatting of the skin and/or frostbite. Liquid contact to the eye can cause discomfort, usually no extended effects.				
Absorbed through skin: This material is poorly absorbed through the skin.				
Swallowed: Although oral toxicity is low, ingestion of this product is to be avoided.				
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HEALTH EFFECTS OR RISKS FROM EXPOSURE				
Acute: Same as Symptoms of Overexposure (see above)				
Chronic: Based on animal studies and human experiences, this fluorocarbon poses no hazard to man relative to systemic toxicity, carcinogenicity, mutagenicity, or teratogenicity when occupational exposures are below its TLV .				
FIRST AID: EMERGENCY PROCEDURES:				
Eye contact: Immediatly flush with plenty of water for at least 15 minutes, treat for possible frostbite. Call a physician.				
Skin contact: Flush with water. Treat for frostbite if necessary. Get medical attention if irritation is present.				

Inhaled: Remove to fresh air, call a physician. If not breathing, give artificial resperation, prefferably mouth-to-mouth. If breathing is difficult, give oxygen. DO NOT give epinephrine or similar drugs.
Swallowed: No specific intervention is indicated as the compound is not likely to be hazardous by ingestion. However, consult a physician if necessary. Do not induce vomiting as the hazard of aspirating the material into the lungs is a greater hazard than allowing it to progress through the intestinal tract.
SUSPECTED CANCER AGENT?
\underline{xx} NO: This product's ingredients are not found in the lists below.
YES: Federal OHSA NTP IARC Cal/OSHA*
*Note: California employers using Cal/OSHA-regulated carcinogens must register with Cal/OSHA.
MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:
Cardiovascular disease: See Principal Hazards: Inhalation Section
RECOMMENDATIONS TO PHYSICIAN: Because of possible increased risk of eliciting cardiac dysrythmias, catecholamine drugs such as epinephrine, should be considered only as a last resort in life threatening emergencies.
STABILITY: xx Stable Unstable
CONDITIONS TO AVOID: Open flames or high temperatures.
INCOMPATIBILITY (materials to avoid): Alkali or alkaline earth metals - powdered Al, Zn, Be, etc.
HAZARDOUS DECOMPOSITION PRODUCTS (including combustion products): Hydrochloric and Hydrofluoric acids - possible Carbonyl Halides.
HAZARDOUS POLYMERIZATION: May occur xx will not occur
CONDITIONS TO AVOID: N/A
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SPILL RESPONSE PROCEDURES (include employee protection measures): Ventilate area, especially in low places where heavy vapors might collect. Remove open flames. Do not flush into sewers. Dike spill, collect on absorbent material and transfer to steel drums for tecovery or disposal. Self-contained breathing apparatus (SCBA) is required if a large spill occurs.
PREPARING WASTES FOR DISPOSAL (container types, neutralization, etc.): Comply with federal, state and local regulations. Remove to a permitted waste disposal facility. EPA Hazardous Waste Nos. F001 and F002 may apply to waste materials.
NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VENTILATION AND ENGINEERING CONTROLS: Normal ventilation for standard manufacturing procedures is generally adequate. Local exaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

RESPIRATORY PROTECTION: Under normal manufacturing conditions, no respiratory protection is required when using this product. Self contained breathing apparatus (SCBA) is required if a large spill occurs.

EYE PROTECTION (type): Chemical splash goggles as needed to prevent eye contact of liquid.

GLOVES (specify material): Butyl gloves when handling liquid.

OTHER CLOTHING AND EQUIPMENT: N/A

WORK PRACTICES, HYGENIC PRACTICES: For industiral use only.

OTHER HANDLING AND STORAGE REQUIREMENTS: Store containers in clean dry area. Store in temperatures below 120° F. Do not heat above 125° F.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: N/A

*====== =	IX.	LABELING	=======================================

LABELING (precautionary statements)*

Use with adequate ventilation. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with the skin. Do not take internally. Keep out of reach of children. Caution-Contents under pressure. Do not puncture or incinerate. Keep away from open flame. Store below 120 F. and out of sun's rays.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

*Not required. Space has been provided on this form for optional use.